

# SOUSVEILLANCE: INVENTING AND USING WEARABLE COMPUTING DEVICES FOR DATA COLLECTION IN SURVEILLANCE ENVIRONMENTS

Steve Mann, Jason Nolan,  
and Barry Wellman



# SURVEILLANCE

# SURVEILLANCE

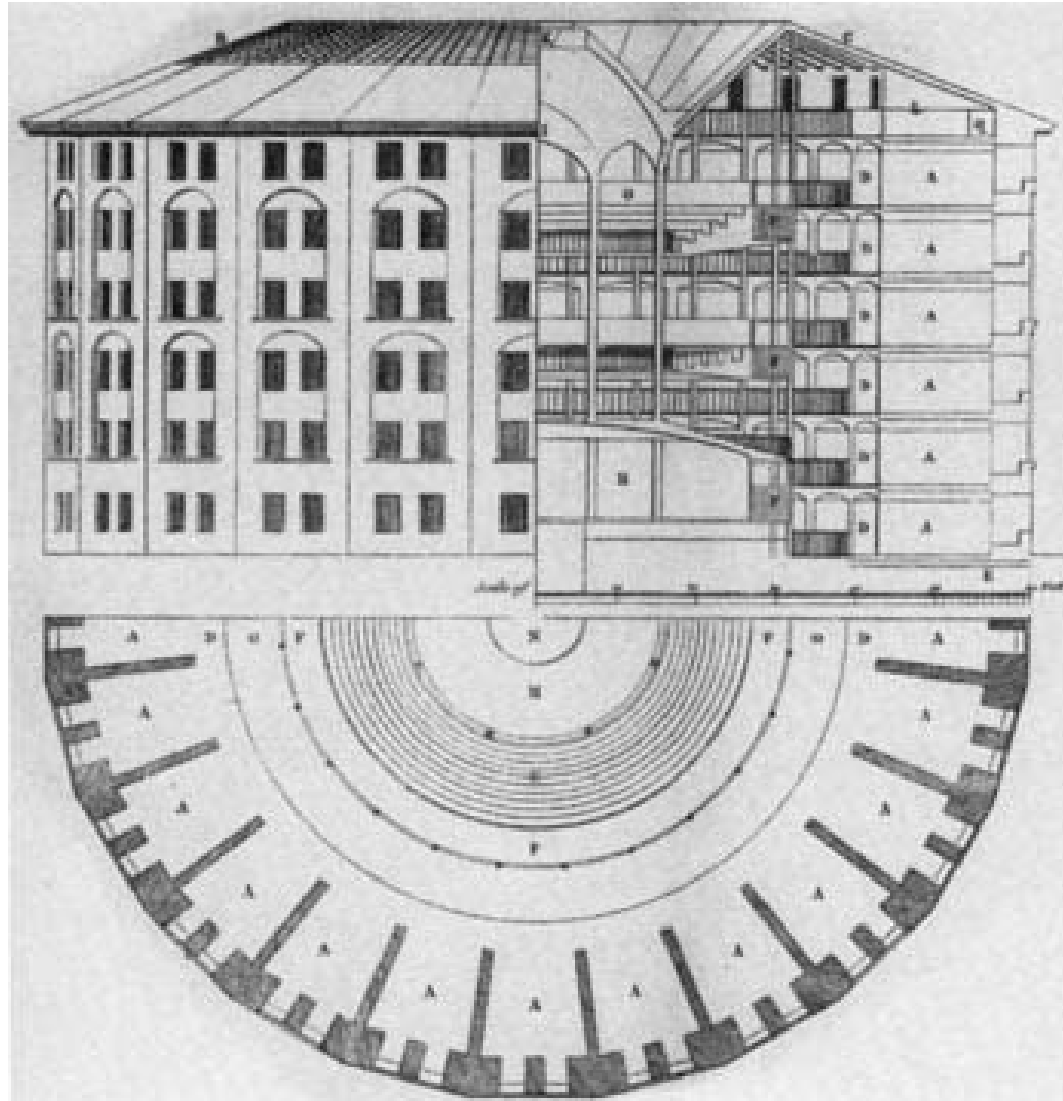
sur VEILLER

# SURVEILLANCE

sur VEILLER

“on” “watch”

# SURVEILLANCE



*Panopticon* (1838) Jeremy Bentham

# SURVEILLANCE

- 40% increase in security cameras in New York's financial district
- 30 million more security cameras in the United States
- Passing of the Patriot Act in October 2001

2, 2001, 17:37:19

planc



# PATRIOT ACT



- Roving Wiretaps
- “Sneak and Peek” Warrants
- Imposition of Gag Orders
- Monitoring and Reporting Financial Transactions
- Disclosure of Educational Records

# SOUSVEILLANCE



# SOUSVEILLANCE

sur VEILLER

“on” “watch”

# SOUSVEILLANCE

sous VEILLER

“below” “watch”

# SOUSVEILLANCE

**The resituation of technologies  
of surveillance and control on  
individuals, offering panoptic  
technologies to help them  
observe those in authority**



# SOUSVEILLANCE: PERFORMANCE 1

- Wearable Computer
- Image Projection on Ground
- Product Displays
- Live Image Capture







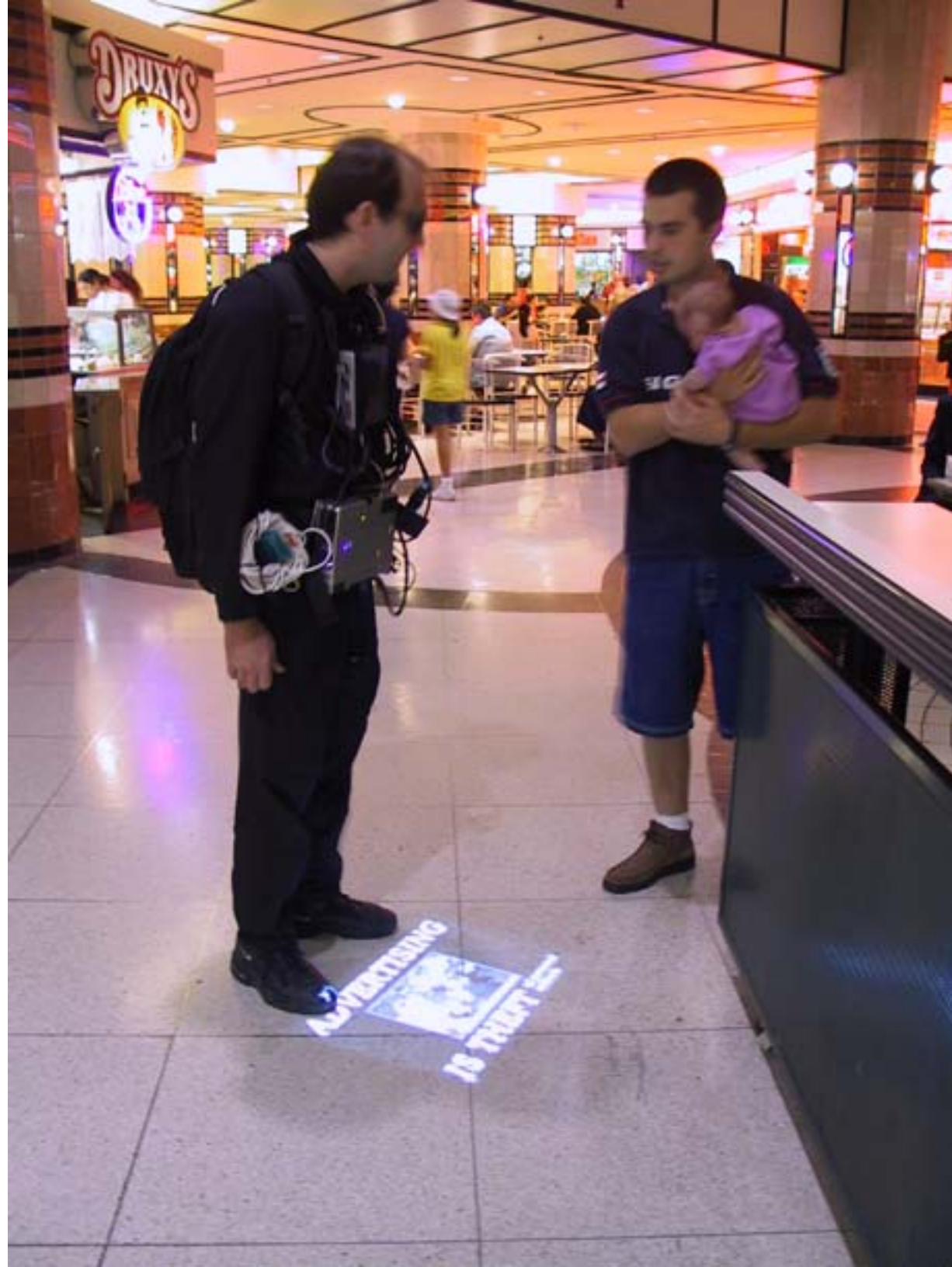
# SOUSVEILLANCE: PERFORMANCE 2

- Wearable Computer
- Hidden Camera Live Image Capture
- Images Used in Marketing
- Provocative Text Messages

**ADVERTISING**



**IS THEFT** of personal  
solitude

















ADVERTISING  
IS THEFT of ideas

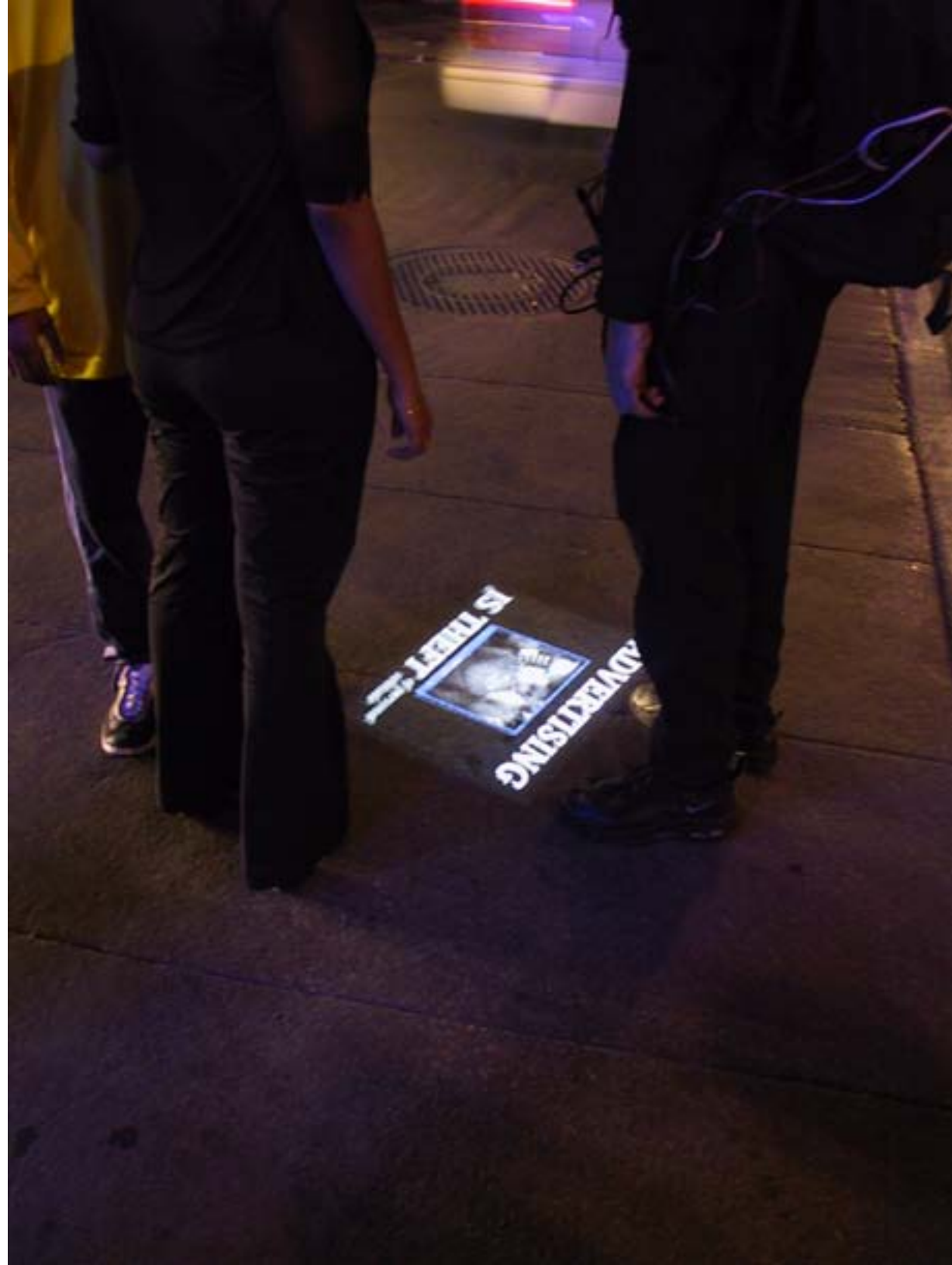


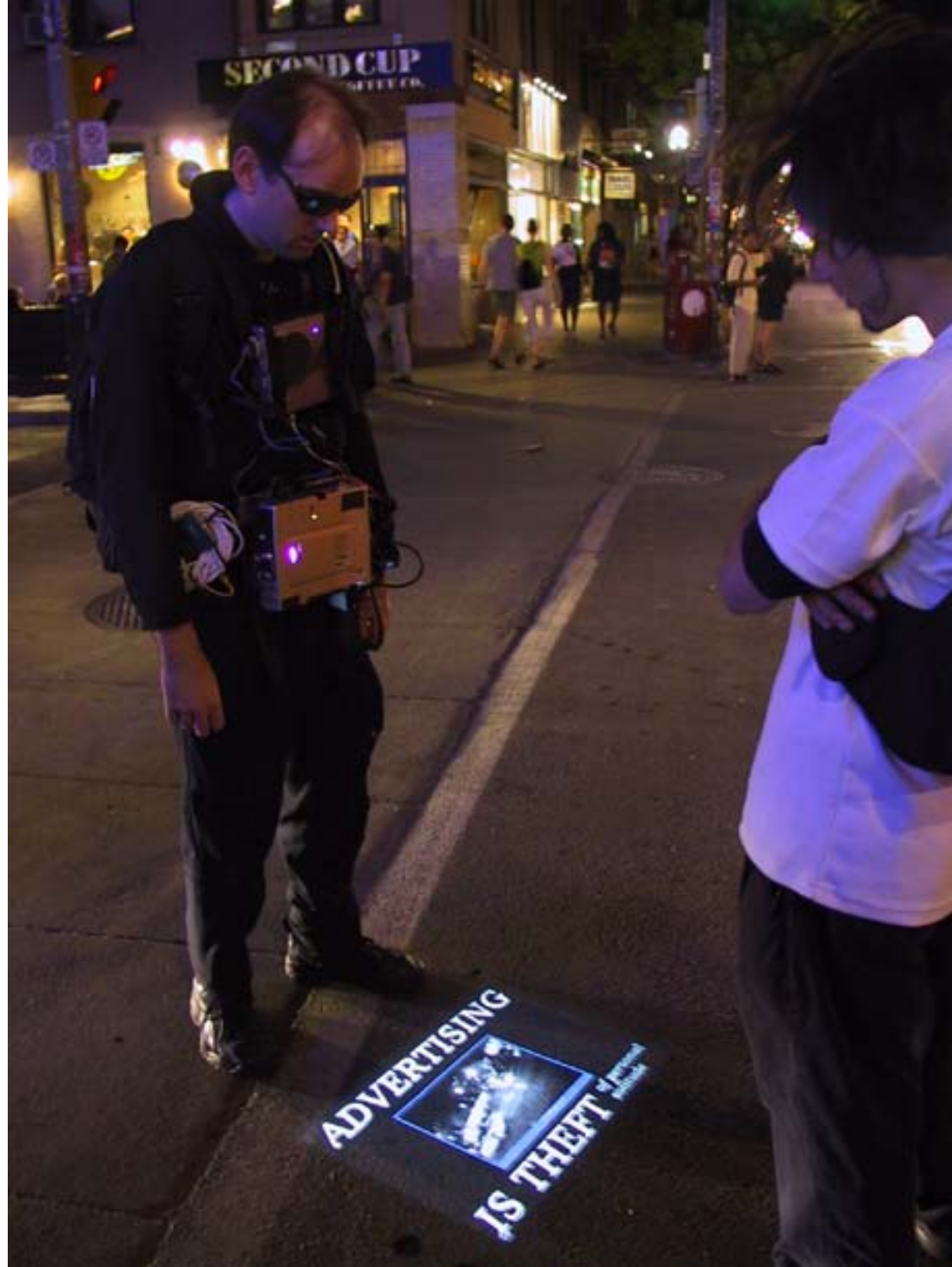








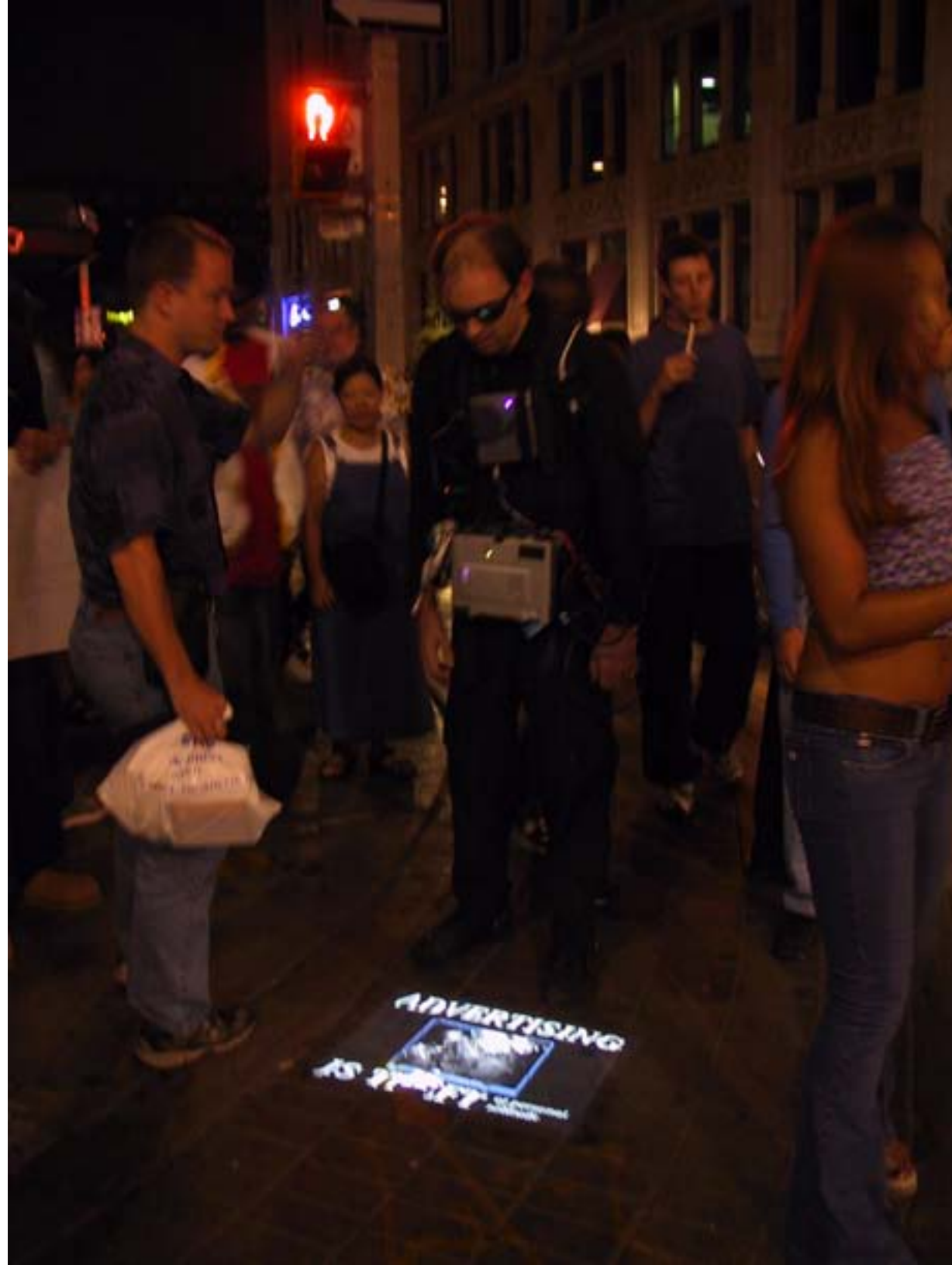












# SOUSVEILLANCE: PERFORMANCE 3

- Wearable Computer
- Image Projection on Ground
- 2 Cameras: 1 Motion 1 Still
- Live Image Capture
- Appears Unable to Remove Device







This area is  
video-taped by  
Security Cameras





**EXIT**



## Cameras reduce crime

for your protection your images shall be  
recorded and transmitted to the EXISTech  
image recognition facility









### Cameras reduce crime

for your protection your image  
recorded and transmitted to  
image recognition facility





ROOTS CE



















Cameras reduce crime

For your protection your images shall be  
recorded and transmitted to the network  
image recognition facility

© 2000-2001  
All rights reserved  
No part of this publication may be reproduced  
without the prior written permission of the  
publisher

A person's foot, wearing a dark shoe, is stepping on a rectangular floor sign. The sign is white with black text and a small graphic. The person is wearing dark trousers and a dark jacket. The floor is a light-colored, polished surface.





























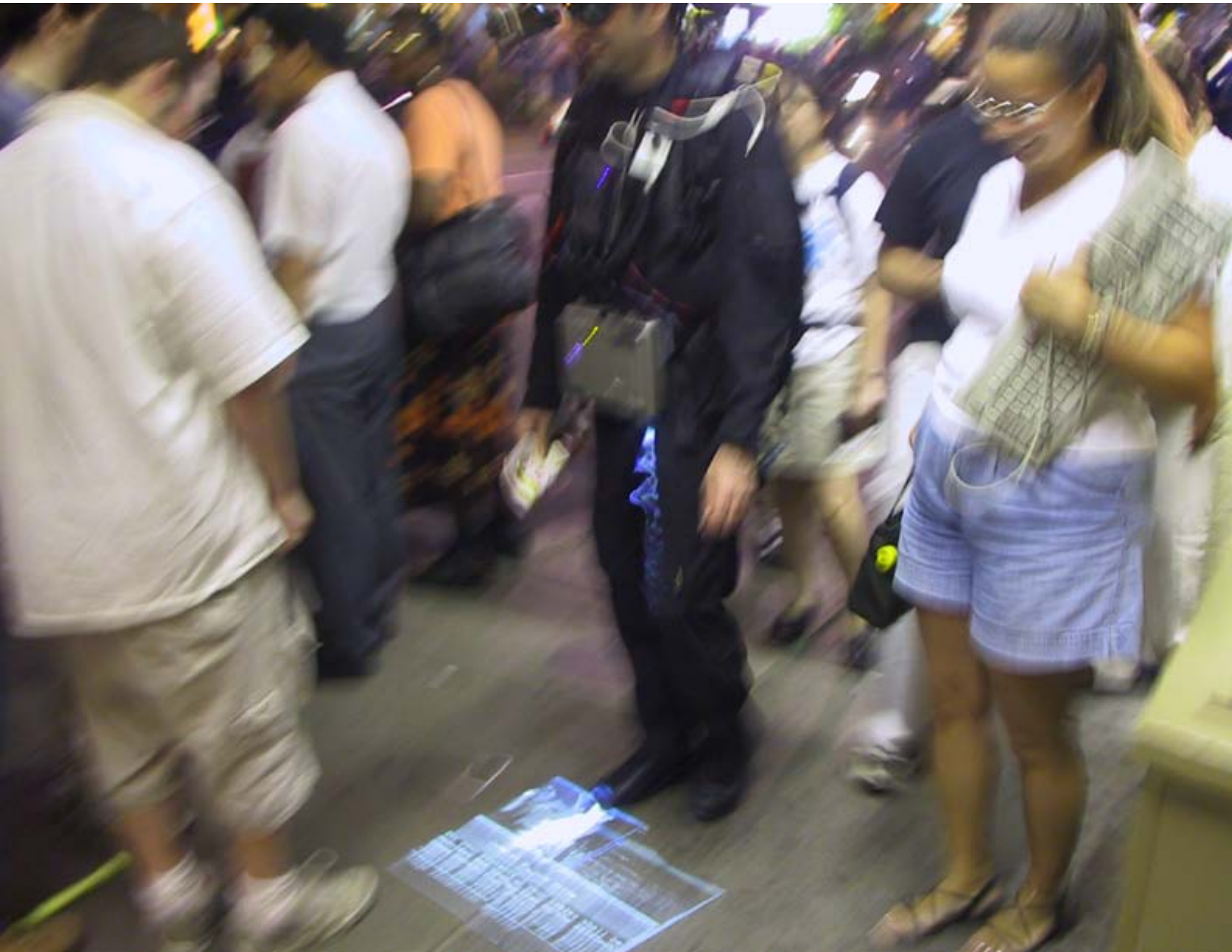


















# SOUSVEILLANCE: PERFORMANCES 4 & 5

- Wearable Computer
- Wearable Displays
- Conspicuously Concealed Cameras
- Invisiblity Suit



















AVEDA

what's the fresh idea?



AVEDA SKIN SERVICES

Facial	\$65
Exfoliation	\$10
Massage	\$15
Steam	\$5
Extraction	\$10
Hydrating Mask	\$10
Anti-Aging Mask	\$10
Acne Treatment	\$10
Eye Treatment	\$10
Lip Treatment	\$10
Neck Treatment	\$10
Hand Treatment	\$10
Foot Treatment	\$10
Body Treatment	\$10
Head-to-Toe Treatment	\$10





































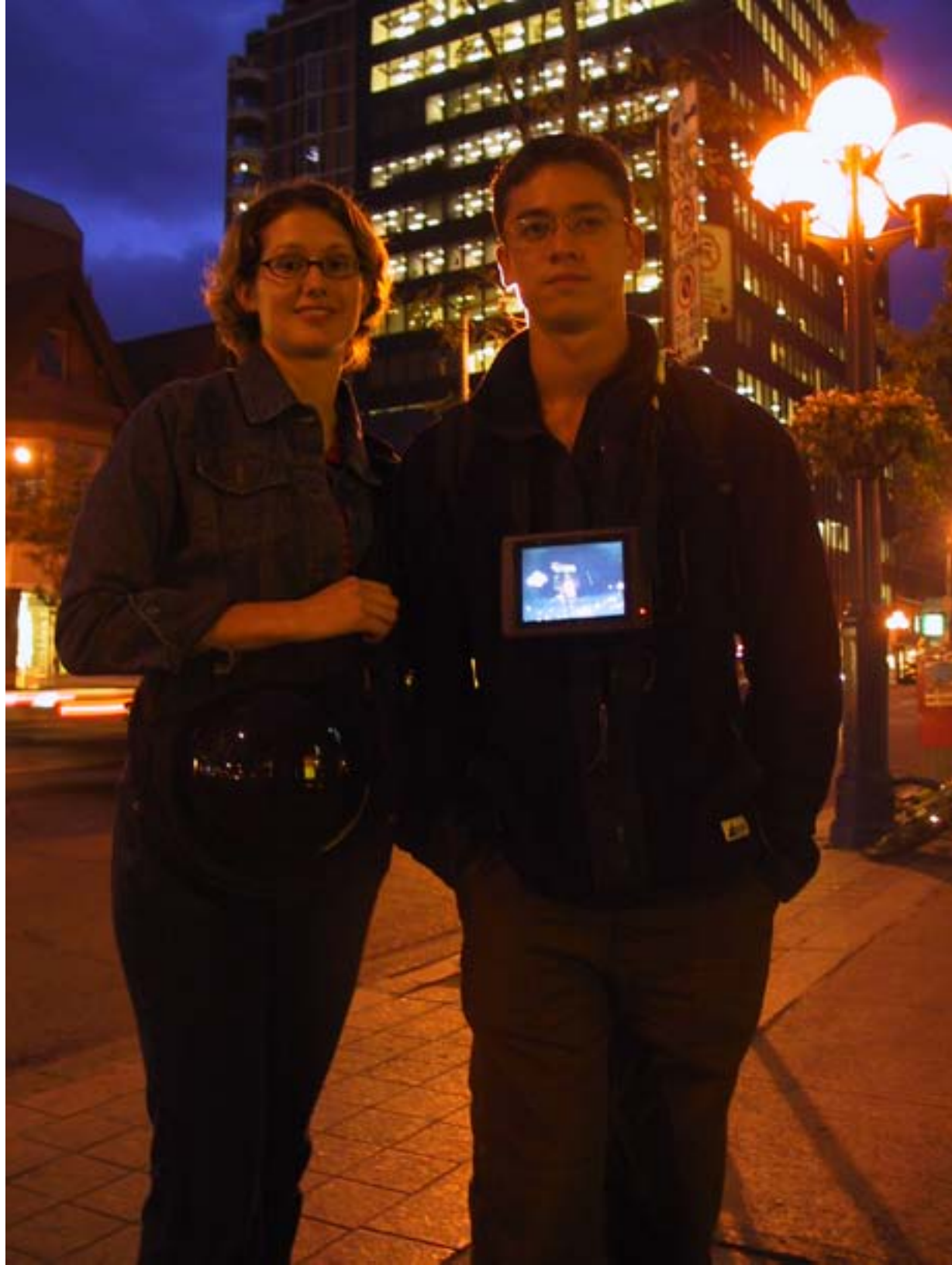












# QUESTIONS

**1. Does sousveillance really challenge the authority of surveillance? How?**



# QUESTIONS

2. Is increasing the number of cameras really fighting the system? Or is it strengthening it?

# QUESTIONS

**3. Does increased surveillance bother you?**